

What Is Claimed Is:

1. A method for adaptively controlling power in a radar device (520) having a radar transmitter and a radar receiver, in particular for mobile applications in the automotive sector, in which radar signals are emitted, and radar signals reflected off of target objects are received, wherein the received signals are checked for irregularities, and the transmitting power of the radar transmitter is reduced if irregularities occur and these irregularities are attributable to interference caused by neighboring radar transmitters.

2. The method as recited in Claim 1, wherein the repetition rate of the measurements is reduced.

3. The method as recited in either Claim 1 or 2, wherein, when the vehicle is at a standstill or traveling at an only relatively low speed, the transmitting power of the radar transmitter is reduced to such an extent that only a fraction of the range attainable when working with a normal transmitting power is still covered.

4. The method as recited in one of Claims 1 through 3, wherein the transmitting power is reduced in stages, starting out from the maximum power, in such a way that the transmitting power is decreased to the next lower stage, when, in the measuring operation previously carried out using the next higher stage of the transmitting power, no target object is detected.

5. The method as recited in one of the preceding claims, wherein, once the transmitting power is decreased to a lower stage, the transmitting power is briefly increased in periodic intervals to a higher stage, in particular the maximum

transmitting power, in order to increase the probability of discovering target objects at greater distances.

6. The method as recited in one of the preceding claims, wherein, even after the transmitting power is decreased, the received signals are checked for irregularities for every stage of the transmitting power, and the transmitting power is increased to the next higher stage when no more irregularities are ascertained in the received signals.

7. The method as recited in one of the preceding claims, wherein additional measured values are utilized from the surrounding field of traffic, such as recorded traffic noise and/or light radiated by adjacent road users, to ascertain the traffic density and the interference potential that is dependent on the traffic density.

8. A device for adaptively controlling power in a radar device (520) having a radar transmitter and a radar receiver, in particular for mobile applications in the automotive sector, in which radar signals are emitted, and radar signals reflected off of target objects are received, wherein the device includes means for checking the received signals for irregularities, and the transmitting power of the radar transmitter is reduced if irregularities occur and these irregularities are attributable to interference caused by neighboring radar transmitters.

9. The device as recited in Claim 8, wherein it includes a PLL circuit (568), as well as a mixer (570) for determining the frequency of interference signals.